



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,230	08/22/2003	Shao-Chun Chen	14312US02	1388
23446 7590 07/23/2007 MCANDREWS HELD & MALLOY, LTD 500 WEST MADISON STREET SUITE 3400 CHICAGO, IL 60661			EXAMINER HERRERA, DIEGO D	
			ART UNIT 2617	PAPER NUMBER
			MAIL DATE 07/23/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/646,230	Applicant(s) CHEN, SHAO-CHUN	
	Examiner Diego Herrera	Art Unit 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 8/22/2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/22/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on 8/22/2003 was filed. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Criss et al. (US publication 20010029178 A1), and in view of Angelo et al. (US patent 5974250).

Regarding claim 1. Criss et al. discloses a mobile services network (abstract fig. 1 (whole), 12 (elements 296, 297, 298)) comprising: a mobile electronic device (mobile terminal fig. 1 element 36); an update package repository (paragraph [0013]); generator preprocessor (paragraph [0060]) and nodes (fig. 1, 5, 7; paragraph [0052], [0062], [0065]; Criss et al. teaches the update packages either requested by user of mobile device or by the mobile device is able determine what filenames it needs on the update package, hence, nodes).

However, Criss et al. do not specifically include a management server; nonetheless, Angelo et al. teaches a management server (col. 7 lines: 18-22, SMI system management mode). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Criss et al. to specifically include management server as taught by Angelo for the purposes of securely distributing code package updates.

Consider claim 2. The network according to claim 1, Criss et al. discloses wherein the generator with nodes preprocessor generates update packages by comparing an old

version and a new version of firmware (Criss et al. teaches comparison according to predetermined criteria to updating being appropriate, paragraph [0016]-[0017], [0051], [0074]).

Consider claim 3. The network according to claim 2, Criss et al. discloses wherein the update packages are populated into the update package repository (fig. 5, 12-14, paragraph [0101], [0103], Criss et al. teaches where the files are stored the path taken can be stored in the host computer or FTP as to where the files names are located).

consider claim 4. The network according to claim 2, Criss et al. discloses wherein the generated update packages incorporate filter information (paragraph [0017], [0016], [0051]; Criss et al. teaches that system compares version of operating system and then sends what the mobile needs on update packages).

consider claim 5. The network according to claim 2, Criss et al. discloses wherein the generated update packages incorporate node information (fig. 5, 13; paragraph [0101], [0103], Criss et al. discloses teaches that the mobile determines that the data and file names that is to be downloaded to the mobile is different from what the mobile has, hence, the node information is included in the update packages).

consider claim 6. The network according to claim 1, Criss et al. discloses wherein the management server and the update package repository are communicatively coupled

Art Unit: 2617

(fig. 1, abstract, paragraph [0047], Criss et al. teaches management server or host is hardwired communicatively with FTP server).

consider claim 7. The network according to claim 1, Criss et al. discloses wherein the generator with nodes preprocessor and the update package repository are communicatively coupled (fig. 1, 12, paragraph [0100], Criss et al. teaches that the computer host and the FTP server are communicatively connected by the system backbone).

consider claim 8. The network according to claim 1, Criss et al. discloses wherein the generator with nodes preprocessor is located at a remote location from the update package repository (fig. 1, 5a-5d, 12, paragraph [0099]-[0100], Criss et al. teaches that host and FTP server and base stations are separate from each other, Host interacts with mobile through the base station determining update package necessitated by mobile, FTP server contains update packages).

consider claim 9. The network according to claim 1, combination of Criss et al. and Angelo et al. discloses wherein the mobile handset comprises:

a non-volatile memory (EEPROM paragraph [0054], Criss et al. teaches EEPROM in mobile terminal);

a random access memory (RAM paragraph [0063], [0062], fig. 5a-5d, Criss et al.

teaches type of file being assign to the package of update to mobile device hence the

ability that the mobile device has Random Access Memory); and security services (abstract, col. 2 lines: 12-20, 56-62; Angelo et al. teaches system for transmitting securely).

consider claim 10. The network according to claim 9, Criss et al. wherein the non-volatile memory comprises: an update agent; a firmware and real-time operating system; a download agent; and a boot initialization (paragraph [0054], Criss et al. teaches that non-volatile memory can comprise of related utility programs, hence, the ability of possessing download agent, boot initialization, update agent, firmware, and real-time operating system).

consider claim 11. The network according to claim 10, Criss et al. discloses wherein the non-volatile memory further comprises an operating system layer (BIOS paragraph [0053]-[0054], Criss et al. teaches basic-input-output-system updates).

consider claim 12. The network according to claim 10, Criss et al. discloses wherein the non-volatile memory further comprises an end-user-related data and content unit (paragraph [0054], Criss et al. teaches that non-volatile memory can comprise of related utility programs, hence, the ability of possessing download agent, boot initialization, update agent, firmware, and real-time operating system).

Claims 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Criss et al., and Angelo et al., and further in view of Hayes, jr. et al. (US patent 5974312).

Regarding claim 16. the combination of Criss et al. and Angelo et al. discloses a method for generating an update package using an old image and a new image of a firmware in a mobile services network, the method comprising:

however, Criss do not specifically discloses converting symbols in the new and old images of the firmware into distance information, nonetheless, Hayes et al. teaches the limitation (col. 10 lines: 35-40, Hayes et al. teaches the ability to update sub-blocks of data, hence the ability to determine distance information);

determining a list of nodes in the old and new images of the firmware, Hayes et al. teaches limitation (wireless manager, abstract, col. 15 lines: 4-9, has list of blocks needed to be updated).

therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Criss et al. and Angelo et al. to specifically include updating information with predetermined requirements as taught by Hayes et al. for the purposes of securely transferring information and updating operating software in mobile terminal.

Regarding claim 22. the combination of Criss et al. and Angelo et al. discloses a method for generating an update package using an old image and a new image of a firmware in a mobile services network, the method comprising the steps of:



however, Criss et al. do not disclose converting symbols in the new and old images of the firmware into distance information, however, Hayes et al. teaches the limitation (col. 10 lines: 35-40, Hayes et al. teaches the ability to update sub-blocks of data, hence the ability to determine distance information);

determining a list of nodes in the old and new images of the firmware, Hayes et al. teaches the limitation (wireless manager, abstract, col. 15 lines: 4-9, has list of blocks needed to be updated).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Criss et al. and Angelo et al. to specifically include updating information with predetermined requirements as taught by Hayes et al. for the purposes of securely transferring information and updating operating software in mobile terminal.

consider claim 13. The network according to claim 10, the combination of Criss et al. and Angelo et al. does not specifically disclose wherein the mobile electronic device executes an update process according to the following:

downloading an update package from the update package repository; rebooting; executing the boot initialization; determining whether an update process is needed; and invoking the update agent; however, Hayes, jr. et al. teaches the mobile electronic device being able to update packages from a source, determining whether an update process is needed, and invoking the update (col. 2 lines: 28-35, Hayes teaches unit checking for updates by searching to establish communication with predetermined

Art Unit: 2617

channels with carrier. Col. 2 lines: 36-40, second device wireless programmer has received permission to update said electronic device).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the inventions of Criss et al. and Angelo et al. to specifically include the mobile electronic device being able to update packages from a source, determining whether an update process is needed, and invoking the update, as taught by Hayes, jr. et al. for the purposes of reducing labor intensive updates (col. 1 lines: 50-55).

consider claims 14 & 15. The network according to claim 13, the combination of Criss et al. and Angelo et al. does not disclose wherein the mobile electronic device determines the need for an update process based on status information, however, Hayes, jr. et al. teaches the electronic device determines the need for an update process based on status information (col. 2 lines: 27-35, Hayes teaches the ability to have mobile device wake up and receive updates and download them from wireless programmer; col. 16, lines: 48-51, Hayes teaches the ability of comparing and authenticate information with wireless programmer). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention of Criss et al. and Angelo et al. to specifically include the electronic device determines the need for an update process based on status information, as taught by Hayes, jr. et al. for the purposes of updating mobile device and reducing labor intensive updates.

consider claim 17 and 18. The method according to claim 16 the combination of Criss et al. and Angelo et al. does not disclose wherein the determining comprises: determining addresses of symbols in the old image, however, Hayes et al. teaches the limitation (col. 2 lines: 27-35, Hayes teaches the ability to have mobile device wake up and receive updates and download them from wireless programmer); determining addresses of symbols in the new image, however, Hayes et al. teaches the limitation (col. 6 lines: 14-16, byte by byte or in block of bytes);

comparing the differences in the addresses of the symbols in the old image and the new image, however, Hayes et al. teaches the limitation (col. 16, lines: 48-51, Hayes teaches the ability of comparing and authenticate information with wireless programmer);

predicting the differences in addresses of subsequent symbols, however, Hayes et al. teaches the limitation (table 2 BSS block start sequence); determining the symbols for which offsets cannot be predicted (table 2 BSS block start sequence).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Criss et al. and Angelo et al. to specifically include the updating protocol determining which codes address need to be updated as taught by Hayes, jr. et al. for the purposes of updating operating system and updating the mobile terminal.

consider claim 19. The method according to claim 16, the combination of Criss et al. and Angelo et al. does not disclose wherein a pre-predict phase is performed to

Art Unit: 2617

generate filter information, and wherein the pre-predict phase comprises: identifying instructions using instruction prediction; fixing address locations and producing filter information; and fixing data and producing filter information using block hunting.

consider claim 20. The method according to claim 16, the combination of Criss et al. and Angelo et al. does disclose wherein the filter information comprises node location and address range information, however they do not specifically disclose where prediction was successful, however, Hayes, jr. et al. discloses the ability to report success in updates (col. 2 lines: 49-50, Hayes teaches successfully device re-programmed). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made by Criss et al. and Angelo et al. to specifically include the filter information comprises node location and address range information, as taught by Hayes, jr. et al. for purposes reducing labor intensive updates (col. 1 lines: 50-55).

consider claim 21. The method according to claim 16, the combination of Criss et al. and Angelo et al. does not disclose specifically wherein a pre-predict phase is performed to generate filter information, and wherein the pre-predict phase is followed by a predict phase, wherein the predict phase comprises:

However, Hayes, jr. et al. teaches performing instruction prediction utilizing the generated filter information (this is understood by examiner to be updating determination which Hayes et al. teach in col. 2 lines: 27-35, Hayes teaches the ability

Art Unit: 2617

to have mobile device wake up and receive updates and download them from wireless programmer; col. 16, lines: 48-51, Hayes teaches the ability of comparing and authenticate information with wireless programmer); and executing block hunting utilizing the generated filter information (col. 6 lines: 8-14, Hayes teaches looking at byte by byte or in blocks of bytes to execute instructions). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Criss et al. and Angelo et al. to specifically include performing instruction prediction utilizing the generated filter information; and executing block hunting utilizing the generated filter information as taught by Hayes, jr. et al. for purposes of cost effective updates (col. 1 lines: 50-55).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Diego Herrera whose telephone number is (571) 272-0907. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2617

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DH

  
**LESTER G. KINCAID**  
**SUPERVISORY PRIMARY EXAMINER**